WAIS, INC. – AMERICA ONLINE

July 18, 1994

America Online:

    Steve Case
    Mike Connors
    Barry Appleman
    Sunil Paul

WAIS, Inc.:

|	
Brewster Kahle, President	brewster@wais.com.
Bruce Gilliat, VP–Sales, Marketing	bruce@wais.com
Harry Morris, Senior Information Engineer	morris@wais.com.
Dan Aronson, Senior Engineer/Info. Services	dan@wais.com
Bill Dunn, Board of Directors	bill@wais.com

WAIS Inc.

"WAIS is one of the basic food groups of the Internet"
— Daniel Dern

- Created Network publishing (stuffed)
- Leader in tools for network publishing
- shaping the future

Market Overview

~~email~~ ~~games~~ (scribbled out)
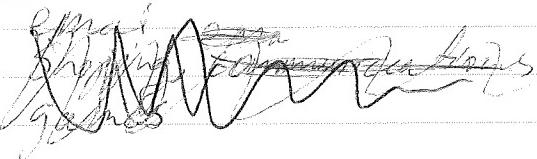
Internet Applications

- email, bboards, ~~FTP~~ file transfer
- Internet publishing
- Shopping, games, X.25 apps

WAIS specializes in Internet Publishing

Technology position

Massively accepted on Internet
Established leader in Technology
Licensing in technology: T
~~Licensing out technology: fulcrum~~, Fuji

The WAIS Server

< where WAIS fits >

WAIS Publisher

< future picture >

Related Technology Relationships

- Fulcrum, Encyclopedia B, Fujitsu, Ensemble

- Compatible with Interleaf, Frame, HTML authoring tools
  SGML authoring ~~software~~ conversion software

- Negotiations with: Mosaic Comm Corp, EIT, RSA,

4 346-98 29
   841-6757

AOL - WARS meeting

AOL's concerns

Lightning

Thunder

From: SunilPaul@aol.com
X-Mailer: America Online Mailer
Sender: "SunilPaul" <SunilPaul@aol.com>
To: brewster@wais.com
Date: Sun, 29 May 94 15:33:44 EDT
Subject: sorry, I couldn't fax

that paper for a Saturday pickup....here's the email version -- [too bad you
don't have an AOL email account so you could see the rich text -- we can fix
that soon enough :)]

I think this will go a long way to getting internal momentum for this
direction for the company.

Looking forward to seeing you Tuesday...

Sunil

Thunder and Lightning
Taking the Internet by Storm with AOL Publishing Tools

by Sunil Paul and William Marriott
May 25, 1994

Overview

 This white paper describes two projects that are important components of
AOL's Internet Strategy. The first is Lightning, a quick-time-to-market
effort with WAIS, Inc. to develop software that will automatically convert
material in Rainman Plus to a format for Internet publishing. AOL needs
Lightning to satisfy the immediate needs of customers such as Time, Inc. as
well as other IPs who want to publish both on AOL and the Internet. The
second project is Thunder, a next generation Internet publishing tool that
will establish AOL technology as the next Internet publishing standard.
 Thunder will initially involve both AOL and WAIS, Inc., but will grow to
involve other players in the industry as well.

The Information Provider's Dilemma

 With explosive growth in the online market, a host of new online services,
and the emergence of the Internet as a massive arena for media competition,
information providers face more uncertainty than ever about how to proceed.
Interactive publishing is still hard work, and making the wrong choice could
put an IP at a severe disadvantage in the future. If they choose a commercial
provider, the IP must invest in a format that fickle consumers might shun one
day. If they invest in the Internet format, who can predict when the tool of
choice today is obsolesced by the Next Great Thing? Furthermore, current
Internet publishing formats still don't have the sophisticated graphics and
layout of proprietary formats such as Rainman Plus. Furthermore, the only
readily available method for charging for access to information is through
commercial providers.

 The battle for IP's content, then, will be over standards. So far, the
Internet's HTML (Hypertext Markup Language) has the greatest momentum. Its
annual rate of growth in traffic is 341,634 percent. In a standards battle,
momentum is the most important key to success. One of the reasons Mosaic,
which was introduced only 8 months ago, has so much momentum is that it
subsumes the earlier popular formats, Gopher (an internet menu system growing
at 977 percent annually), FTP (file transfer), and Telnet (remote login). A
second reason for its sucess is it ease of use, ease of installation, and
cost (free).

Winning the Standards Game

  Thunder and Lightning is our strategy for winning the standards game. It
builds on AOL's Rainman Plus technology, moving it from just another
proprietary format to a robust, open standard.

The Thunder and Lightning strategy has the following components:

* Lightning -- A fast-track technology that lets any AOL IP publish to the Internet with little effort. The Lightning strategy is to position AOL's Rainman Plus as a platform from which to publish to internet formats. Just as word processing applications gain market share by complying with their competitor's formats, Lightning will make Rainman Plus a more attractive interactive publishing platform. The target delivery of the product is August/September 1994. (See the attached screen shots of Mosaic and Rainman Plus for Time, Inc.)

* Thunder -- A protocol for interactive documents based on Rainman Plus technology that lets anyone create an "AOL-compatible" information service. Incorporates a browser (integrated into the AOL client), a server, and an authoring environment. The delivery date target is Summer/Fall 1995. The immediate goal is to create a funcational specification by July 1994.

* Strategic partnerships -- alliances and acquisitions of companies that today will help us bridge between the various open protocols already available, and tomorrow will help conceive a new protocol that receives broad-based industry support. WAIS, Inc. would the first of several companies in this category.

Lightning
Building Momentum for the Rainman Plus Format

 Lightning makes it a lot easier for an Information Provider to say, "yes," to America Online. This quick-to-market utility makes AOL a one-stop shop for interactive publishing needs and assures IPs that their investment is safe with AOL. That is because for the cost of putting their information in Rainman Plus format, they instantly access a channel to publish on the Internet.

 Lightning would be the first project of an alliance between WAIS, Inc. and AOL, Inc. that provides solutions for companies interested in electronic publishing.   Information Providers demand interactive publishing tools that function across AOL and the Internet. Large customers such as Time and Scholastic have already expressed explicit interest in the capability to simultaneously publish on AOL and on the Internet. These customers see AOL as a source of revenue, an existing user base, and see the Internet as a way to reach large numbers of people and demonstrate technical savvy. These potential customers come to AOL but are hesitant to invest resources in a proprietary interactive publishing format. These same potential customers approach companies such as WAIS, Inc., but are hesitant to invest resources in a small firm. Working together, the two can solve immediate problems for information providers.

Thunder

 Thunder expands AOL's capabilities to include Mosaic and also creates the ability for smaller organizations to create information servers independent of AOL. We plan to do to Mosaic what Mosaic did to its predecessor formats on the internet -- go to a higher level of capability while maintaining compatibility with the previous generation. AOL has three key technology components needed to create this next generation tool:
1. Better interface, especially in areas of layout, IP control over look and feel, and ease of use.
2. Better user tracking and billing
3. Efficient use of low communications bandwidth
There are capabilities of Mosaic that would be very useful for AOL such as hypertext and personalization. Further, the ubiquity of Mosaic is also due to its ability to run on commodity hardware platforms and cost of software (free).

 Thunder publishing tools would include client software (incorporated into AOL's clients), server technology, and authoring tools. Various versions of the tools would allow anyone from an individual to a large IP to publish on

the Internet and on AOL simultaneously. We envision three categories of
tools -- one for large IPs and large online systems such as AOL; one for
corporations or campus-level activity; and one for individual or hobbiest.

Why we Must Act Now

 There are two reasons we must begin Lightning and Thunder now. First, we
have commited to do a Lightning-type of transformation for Time, Inc.
 Although the transformation from Rainman Plus to Mosaic could be done
manually, it would be too complex and expensive to make available to all our
IPs. Given the substantial interest in such capability from a number of IPs,
it makes sense to automate the process as quickly as possible. Second, it is
apparent that others are already working to develop the next generation
internet publishing tools. The limitations of Mosaic and similar tools are
not lost on those that work with them, and already we know that the original
developers of Mosaic are working on enhancements. The window of opportunity
to initiate this type of project, assemble the players and resources, and
gather sufficient momentum is probably less than 3 months.

About WAIS, Inc.

 WAIS, Inc. is a small company that has some of the most extensive experience
 integrating databases and presentation formats on the internet. Their
business is consists primarily of selling their technology and running an
Internet publishing service bureau. As the original developers of the very
popular WAIS database technology, they are well known and well connected in
the Internet community. WAIS specializes in serving the needs of the owners
of very large sets of information. Some of their notable customers include
Encyclopedia Britannica, Perot Systems, Scholastic Network, and Dow Jones.

 WAIS, Inc. was founded in 1992, has tripled employees each year, and has
been profitable each year of its operation. WAIS, Inc. is entirely held by
its employees, which currently number around a dozen.

 An equity stake or ownership of WAIS, Inc. would greatly facilitate the
relationships required to complete the Thunder project. Lightning could
likely be completed under a contractual relationship.

Lightning

Initial Functional Specification

 Lightning is a project to transform data in the Rainman Plus format to a
format compatible with popular internet tools, especially for World Wide Web
(WWW) -- well known in one implementation called Mosaic. The format
description for WWW is called Hypertext Markup Language, or HTML.

Features of the transformation:

* Graphics and text integrated into a form will be displayed in a similar
format HTML

* List boxes will be translated to a list of actionable hypertext buttons in
HTML

* Database searches will translated to form * -based HTML entry boxes

* Multiple AOL forms might be combined into one HTML page

* Information Providers will have the ability to select on a form by form
level the ability to translate to HTML for internet publication.

* Software library downloads will translate to ??? -- depends on our
implementation of downloads -- see BA

* There will be no provision for sales and credit-card transactions over the Internet with this translation

* Text in a scroll box will be presented as a separate HTML page with the first x characters visible as a clickable hypertext button.

* Chat, Newsgroup/MsgBrds, and Surveys will not be supported in the translation

* Items that are exclusively lists will optionally translate to Gopher Server Formats.

* Entire forms can optionally translate to Gopher Server Formats

America Online will:

Provide the necessary information, documentation, and technical assistance for WAIS, Inc. to understand the Rainman format and other information necessary to create the necessary Internet formats.

As necessary, create or modify the necessary forms so they are easily transformed into the necessary internet formats.

WAIS, Inc. will:

Write software to transform information in AOL's Rainman Plus scripts to either HTML or Gopher Server formats.

Facsimile Cover Letter

America Online
8619 Westwood Center Drive
Vienna, Virginia 22182-2285
(703) 448-8700

FAX NUMBER 703/883-1532

TO: Brewster   **DATE:**

SUBJECT: **TIME:**

COMPANY NAME: WAIS, Inc   **FROM:**

FAX NUMBER: 301-309-0021 **SENT BY:** Sunil Paul

CC:

TOTAL NUMBER OF PAGES INCLUDING COVER PAGE: 4

MESSAGE:

Brewsi-
301-309-0021

Rainman --> Lightning

Lightning

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•   There will be no provision for sales and credit-card transactions over the Internet with this translation

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* "Forms" have a specific meaning in HTML that is different from the AOL definition of "form." In HTML, a "form" is a specification for a data input screen.

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Lightning will be a first step to a broader relationship with WAIS, Inc. that will aim to develop *Thunder*, a next generation interactive publishing tool for Internet.